REMARKS

Claims 1-4, 6-8, 13-18, 23-28, and 33-36, all the claims pending in the application, stand rejected. Claims 1, 14 and 23 are amended.

Claim Rejections 35 USC § 112

Claims 1-4, 6-8, 13-18, 23-28, and 33-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is traversed for at least the following reasons.

The Examiner states that the phrase "in surface state of the plate as a base plate" is confusing, rendering these claims indefinite.

Applicants have amended the independent claims 1, 14 and 23 to remove this basis for alleged indefiniteness.

Claim Rejections - 35 USC § 103

Claims 1-4, 6-8, and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dubetsky (USPN 4,259,061) for reasons of record in the previous Office Action at paragraphs 3, 5, and 6. This rejection is traversed for at least the following reasons.

Claims 23-28 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dubetsky in view of Takebe (JP 63157832) for reasons of record in the previous Office Action at paragraph 7. This rejection is traversed for at least the following reasons.

In framing the rejections, the Examiner argues at page 3 in the Response to Arguments that the prior art teaches Ra but is silent with respect to Rmax, but that the art recognizes that surface roughness is a "result effective variable." The Examiner concludes that to optimize the parameter of surface roughness would have been obvious and would have not involved more than routine experimentation.

No Teaching or Suggestion of Rmax

In response to the Examiner's argument related to "Rmax," Applicant respectfully refers the Examiner to Reference examples 17 and 38, both of which are listed in Tables 1 and 3, respectively. Ra/Rmax is specified as being (21/160), as shown in the rightmost column of Tables 1 and 3. That is, both of Reference examples 17 and 38 have surface roughness

represented by Rmax greater than 150 micron meters. Thus, both of Reference examples 17 and 38 fall outside of the scope of claim 1.

Moreover, the evaluated results of Reference examples 17 and 38 are shown in the columns "soundness of product" in Tables 2 and 4, respectively, and have product surfaces that are too roughened to be used as a setter. This data teaches one skilled in the art that even if Ra is not greater than 20 micron meters, Rmax would be often over 150 micron meters, which might make it difficult to use a refractory metal plate as the setter.

Difference Between Ra and Rmax

Applicants respectfully submit that there is a significant difference between Ra and Rmax, and that there is a significant technical merit resulting from achieving an Rmax not greater than 150 micron meters. Applicants stress that the parameters Ra and Rmax as defined in amended claim 1 are technically meaningful and, therefore, the Examiner's rejection should be withdrawn. Applicants respectfully request the Examiner to fully consider these differences, as would be understood by one skilled in the art.

The Molybdenum Plate Characteristics

The molybdenum plate, as claimed in amended claim 14, has (1) disk shaped crystal grains, each of which has (2) a diameter between 15mm and 150mm and (3) a thickness thicker than one fifth of a total thickness of the metal plate. In addition, (4) each size of a disk-shaped surface of each disk shaped crystal grains is represented by a ratio of a longer diameter to a shorter diameter and is not greater than 4. Clearly, the plate defined by claim 14 is uniquely characterized by a size and thickness of each molybdenum crystal grain and is not directed to a size and thickness of the molybdenum plate. In other words, the molybdenum plate is as thin as 1.5mm or the like, as is clear from the parameters in Tables 1 and 3, and is composed of very thin disk shaped crystal grains. Clearly, the size and thickness of each molybdenum crystal grain is to be distinguished from the size and the thickness of the molybdenum plate, as mentioned on page 15 of the present specification.

Claims 1, 14, and 23 have been amended to emphasize this feature by adding the significant limitation that --the oxide coating layer has a surface roughness such that Ra is not

greater than 20 micron meters and Rmax is not greater than 150 micron meters.--:

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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